

CLAIMS

1 1. A method in a computer system for determining performance of a
2 turbine, the method comprising:

3 receiving from a user an identification of a turbine;
4 retrieving configuration information for the identified turbine;
5 determining current performance characteristics of the turbine based on the
6 retrieved configuration information;

7 sending to the user a display page for displaying the determined current
8 performance characteristics;

9 receiving from the user an indication of a modification to the configuration of
10 the identified turbine;

11 determining future performance characteristics of the identified turbine based
12 on the indicated modification to its configuration; and

13 sending to the user a display page for displaying the determined future
14 performance characteristics.

1 2. The method of claim 1 wherein the determining of the current
2 performance characteristics includes simulating the current performance characteristics based
3 on various readings collected from the identified turbine.

1 3. The method of claim 2 wherein the simulating of the current
2 performance characteristics includes estimating fuel flow by repeatedly simulating the
3 current performance characteristics with a varying fuel flow until a desired combustor
4 efficiency is achieved.

1 4. The method of claim 1 wherein the determining of the current
2 performance characteristics includes adjusting initial performance characteristics based on
3 length of time the identified turbine has been in operation.

1 12. The method of claim 11 wherein the simulating of the current
2 performance characteristic includes estimating fuel flow by repeatedly simulating the current
3 performance characteristic with a varying fuel flow until a desired combustor efficiency is
4 achieved.

1 13. The method of claim 11 wherein the display page includes an indication
2 of an average for the performance characteristic for similar turbines.

1 14. The method of claim 11 wherein the display page includes an indication
2 of a highest performance characteristic for similar turbines.

1 15. The method of claim 11 wherein the display page includes a graph
2 illustrating performance characteristics.

1 16. The method of claim 15 wherein the graph includes a background with
2 colors that transition from a shade of red to a shade of yellow to a shade of green.

1 17. The method of claim 11 wherein the display page is a web page.

1 18. The method of claim 11 wherein the display page is sent via the
2 Internet.

1 19. The method of claim 11 including receiving financial information
2 relating to operation of the identified turbine and estimating revenue generated from the
3 identified turbine with the indicated modification.

1 20. A method in a computer system for displaying a performance
2 characteristic of a turbine, the method comprising:

3 sending an identification of a turbine ; and

4 receiving a display page indicating a performance characteristic of the
5 identified turbine relative to the performance characteristic for similar turbines.

1 21. The method of claim 20 including
2 sending an indication of a modification to the identified turbine; and
3 receiving a display page indicating the performance characteristic of the
4 identified turbine with the indicated modification.

1 22. The method of claim 20 wherein the display page includes financial
2 information relating to possible modifications to the identified turbine.

1 23. The method of claim 20 wherein the performance characteristic of the
2 identified turbine is displayed as a graph.

1 24. The method of claim 23 wherein the graph indicates the performance
2 characteristic for similar turbines.

1 25. The method of claim 24 wherein the graph includes an indication of an
2 average performance characteristic for similar turbines.

1 26. The method of claim 24 wherein the graph includes an indication of a
2 highest performance characteristic for similar turbines.

1 27. The method of claim 23 wherein the graph includes a background with
2 colors that transition from a shade of red to a shade of yellow to a shade of green.

1 28. A computer-readable medium containing instructions for controlling a
2 computer system to determine a performance characteristic of a turbine, the turbine having a
3 configuration, by a method comprising:

4 simulating a current performance characteristic based on various readings
5 collected from an identified turbine;

6 receiving an indication of a modification to the configuration of the identified
7 turbine; and

8 determining a future performance characteristic of the identified turbine based
9 on the indicated modifications to its configuration.

1 29. The computer-readable medium of claim 28 wherein the simulating of
2 the current performance characteristic includes estimating fuel flow by repeatedly simulating
3 the current performance characteristic by varying fuel flow until a desired combustor
4 efficiency is achieved.

1 30. The computer-readable medium of claim 28 including receiving
2 financial information relating to operation of the identified turbine and estimating revenue
3 generated from the identified turbine with the indicated modification.

1 31. The computer-readable medium of claim 28 including sending a display
2 page for displaying the determined future performance characteristic.

1 32. The computer-readable medium of claim 31 wherein the display page
2 includes an indication of an average for the performance characteristic for similar turbines.

1 33. The computer-readable medium of claim 31 wherein the display page
2 includes an indication of a highest performance characteristic for similar turbines.

1 34. The computer-readable medium of claim 31 wherein the display pages
2 includes a graph illustrating the performance characteristics.

1 35 The computer-readable medium of claim 34 wherein the graph includes
2 a background with colors that transition from a shade of red to a shade of yellow to a shade
3 of green.

1 36. The computer-readable medium of claim 31 wherein the display page is
2 a web page.

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1 37. The computer-readable medium of claim 31 wherein the display page is
2 sent via the Internet.

1 38. A computer system for determining a performance characteristic of a
2 turbine, the turbine having a configuration, comprising:

3 means for receiving an indication of a modification to the configuration of an
4 identified turbine; and

5 means for determining a future performance characteristic of the identified
6 turbine based on the indicated modifications to its configuration.

1 39. The computer system of claim 38 including:

2 means for simulating a current performance characteristic based on various
3 readings collected from the identified turbine.

1 40. The computer system of claim 39 wherein the means for simulating the
2 current performance characteristic includes means for estimating fuel flow by repeatedly
3 simulating the current performance characteristic by varying fuel flow until a desired
4 combustor efficiency is achieved.

1 41. The computer system of claim 38 including means for receiving
2 financial information relating to operation of the identified turbine and means for estimating
3 revenue generated from the identified turbine with the indicated modification.